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EXAMINER	
STEVENS, THOMAS H	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 04/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/649,193	SINGH, RAMINDERPAL	
	Examiner	Art Unit	
	Thomas H. Stevens	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,6,7,9-12 and 16-52* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,6,7,9-12 and 16-52* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1,2,6,7,9-12,16-17,19-52 were examined.

Response to Applicant's Arguments

Trademarks

2. Applicants are thanked for responding to this issue. Based on applicant's response, objection is withdrawn.

35 USC § 112 (2nd)

3. Applicants are thanked for responding to this issue. Examiner understands applicant's argument; however, if segments of an event, of some technical nature, are to be "connected/joined", then the event should be described in that fashion to avoid ambiguity or misunderstanding. Rejection stands.

35 USC § 102

4. Applicants are thanked for responding to this issue. The examiner is first unclear as to the applicant's point of the NICECAD server and "non-simulating 'graphical user interfaces' does not conduct simulation, where the art clearly states that the NICECAD system incorporates EAS (engineering analysis and simulation) feature which is carried out in a virtual, collaborative and secure environment (column 9, lines 11-17).

Applicants state that the prior art doesn't teach a "first simulation engine and a second simulation engine" via a simulation portal; that portal as described within the specification as an access port (firewall: column 11, lines 57-60) which requires a user name and password (specification: pg.16, lines 5-15). The prior does teach this limitation: (column 11, lines 57-65); secondly, the prior art denotes NICECAD is linked to a plurality of databases (column 10, lines 60-65; and column 11, lines 17-24 with figure 2).

Applicants argue that the prior art doesn't teach "receiving a simulation output file from at least one of said plurality of design teams connected to said simulation portal, which the prior art does teach: (column 15, lines 10-26).

Applicants argue that the prior art doesn't teach a communications server; but their point is contradicted (page 19, lines 3-7 of the response to arguments) by applicants own admission: "As noted above, the Haxtun reference describes a system in which "graphical user interfaces" connect to a NICECAD server".

Furthermore the applicant states the prior art's NICECAD system doesn't perform simulations. Examiner argues that the EAS analysis may be performed using internal NICECAD or external processing modules (column 16, lines 19-25). Based on examiner's response to arguments, rejection stands.

Final Rejection (3rd Office Action)

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Regarding claims 1, 9, 12, 23, 25, 26, 46, 50,52 the phrase "associated" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1,2,6,7,9-12 and 16-52 rejected under 35 U.S.C. 102(e) as being anticipated by Haxtun (U.S. Patent 6,295,513 (2001)). Haxtun teaches a comprehensive, integrated computer-based system and method for undertaking an engineering design and development effort in virtual collaborative environment (abstract).

Claim 1. A method for facilitating a collaborative simulation between a first simulation engine and at least a second simulation engine, wherein said simulation engines are communicatively coupled together with a simulation portal over a computer network, said method comprising (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and

1-8, respectively): creating said simulation portal openly accessible to said first and second simulation engines connected to said computer network (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively);accepting a connection to said simulation portal (column 52, lines 3-4) by each of said first simulation engine and said second simulation engine, receiving a simulation output file from said first simulation engine (column 27, lines 3-13); storing said simulation output file as part of a the simulation in a data storage (figure 9, (946 and 21) with column 9, lines 21-24) area associated with said simulation portal (column 52, lines 3-4) said output file available to all simulation engines participating in the simulation; and providing said simulation output file (column 23, lines 61-65) upon request to at least said second simulation engine.

Claim 2. The method of claim 1(column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively) wherein said creating a simulation portal step further comprises: creating said simulation portal using XML (column 10, lines 7-10); and configuring said simulation portal to allow connections from each of said simulation engines connected to said computer network (columns 9-10, lines 65-67 and 1-4, respectively).

Claim 6. The method of claim 1(column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively) whereby said data storage area manages simulation (figure 2

with column 10, lines 52-65) output files for multiple simulations (columns 25-26, lines 60-67,1-67, respectively, with figures 9 and 15) running contemporaneously.

Claim 7. The method of claim 1 (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively) wherein said accepting a said connection step further comprises: verifying said connection with a username and password combination (column 11, lines 59-63).

Claim 9. A system for performing simulations wherein a first simulation engine and at least a second simulation engine are communicatively coupled together with a simulation portal (column 52, lines 3-4) over a computer network, said system comprising: means for creating said simulation portal (column 52, lines 3-4); means for accepting connections to said simulation portal from each of said first simulation engine and said second simulation engine (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively); means for receiving a one or more simulation output files from said first simulation engine(column 27, lines 3-13); means for storing said simulation output files as part of a simulation in a data storage area associated with said simulation portal (figure 9, (946 and 21) with column 9, lines 21-24) said output files available to any simulation engine participating in the simulation (column 32, lines 12-25), and means for providing said simulation output files upon request to at least said second simulation engine (column 14, lines 45-65).

Claim 10. The system of claim 9 (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively) whereby said means for creating said simulation portal (column 52, lines 3-4) include creating said simulation portal in XML (column 10, lines 7-10).

Claim 11. The system of claim 9(column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively) whereby said means for accepting connections includes verifying said connection with a username (column 11, lines 59-63) and password combination.

Claim 12. A computer program product embodied on computer readable medium usable by a processor the medium having stored thereon a sequence of instructions which when executed by said processor causes said processor to execute a method for facilitating a collaborative simulation between a first simulation engine and at least a second simulation engine (columns 3 and 4, lines 54-67 and 1-10, respectively. Note: examiner is anticipating "structure" of the collaborative engineering environment), wherein said first and said second simulation engines are communicatively coupled with a simulation portal over a computer network, said computer program product comprising: instructions for making said simulation portal (column 52, lines 3-4) openly accessible to said simulation engines over said computer network (column 11, lines 46-56 with columns 25-26, lines 59-67 and 1-67, respectively); instructions for accepting a connection to said simulation portal from each of said first simulation engine and said

second simulation engine (column 9, line 11-17 with columns 31 and 32, lines 45-67, lines 1-5, respectively); instructions for receiving a simulation output file uploaded from at least said first simulation engine, instructions for storing said simulation output file uploaded from said first simulation engine as part of a simulation(columns 31 and 32, lines 45-67, lines 1-5, respectively) in a data storage area associated with said simulation portal (column 52, lines 3-4) said output file available to any simulation engine participating in the simulation, and instructions for providing said simulation output file to at least said second simulation engine upon request.

Claim 16. The computer program product of claim 12 (column 9, line 11-17 with columns 31 and 32, lines 45-67, lines 1-5, respectively) wherein said instructions for storing further comprise instructions for managing simulation output files for multiple simulations running contemporaneously.

Claim 17. The computer program product of claim 12 (column 9, line 11-17 with columns 31 and 32, lines 45-67, lines 1-5, respectively) wherein said instructions for accepting a said connection further comprise instructions for verifying said connection with a username (column 11, lines 57-65) and password combination.

Claim 19. A method for optimizing the components in a system design comprising (column 4, lines 59-67 and column 23, 1-41): creating a simulation portal (column 52, lines 3-5) that is openly accessible over a computer network (column 9, lines 25-43);

publishing a system design specification model (column 29, lines 51-67); accepting a connection to said simulation portal from each of a plurality of design teams communicatively coupled together with said simulation portal over said computer network (column 11, lines 57-60); receiving a simulation output file from at least one of said plurality of design teams (column 11, lines 57-60) connected to said simulation portal (column 11, lines 57-60); storing said simulation output files as part of a simulation in a data storage area associated (column 41,lines 46-67) with said simulation portal; providing at least one of said simulation output files to at least one other of said design teams connected to said simulation portal (column 11, lines 57-60); and selecting the optimal components for said system desire based on a comparison of said simulation output files (column 23, lines 11-17).

Claim 20. The method of claim 19(column 4, lines 59-67 and column 23, 1-41) wherein accepting said a connection step further comprises verifying said connection with a username and password combination (column 11, lines 59-63).

Claim 21. The method of claim 19 (column 11, lines 59-63) wherein said desire teams are not connected to the simulation portal at the same time (column 23-24, lines 61-67 and 1-4, respectively).

Claim 22. The method of claim 19, (column 11, lines 59-63) further comprising terminating (Note: examiner claims this inherent: if secure members a have the ability to

log on, the opposite is true) said connection to said simulation portal from any of said plurality of design teams upon request.

Claim 23. A simulation portal comprising (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4): a data storage repository, capable of storing data associated with each of a plurality of simulations (figure 9, (946 and 21) with column 9, lines 21-24), a communications server (column 9,lines 25-43), allowing a plurality of simulation engines to connect to the portal and to participate in one or more of the plurality of simulations; and a simulation controller, (column 4, lines 51-65) managing and synchronizing communications between the participating simulation engines, the portal being created dynamically.

Claim 24. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the simulation controller manages simulation data for multiple simulations running (column 4, lines 51-65) contemporaneously.

Claim 25. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the data associated with each simulation includes a synchronization (column 9, line 11-24 and colun24, lines 61-65) file to allow the participating simulation engines to match timing steps, said data

associated with each of the simulations available to any simulation engine participating in the simulation.

Claim 26. The portal of claim 25(column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4), wherein the associated synchronization files (column 9, line 11-24 and colun24, lines 61-65) is update by each simulation engine participating in the simulation as it simulates.

Claim 27. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the plurality of simulation engines includes any web enabled engine (column 9, line 11-43).

Claim 28. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the simulation controller verifies a username and password combination (column 11, lines 59-63).

Claim 29. The portal of claim 23, (column 11, lines 59-63) wherein the communication server allows each simulation engine to disconnect (columns 23-24, lines 65-66 and 1-3, respectively) from the portal upon request.

Claim 30. The portal of claim 23, (column 11, lines 59-63) wherein the plurality of simulation engines are not connected to the portal at the (columns 23-24, lines 65-66 and 1-3, respectively) same time.

Claim 31. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the portal is terminated (column 23-24, lines 65-67, lines 1-3, respectively) dynamically by writing programming files and executing those files.

Claim 32. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the programming files are written in XML (column 10, lines 7-10).

Claim 33. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the communications between the participating simulation engines and the portal (column 52, lines 3-4) uses XML (column 10, lines 7-10).

Claim 34. The portal of claim 23, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the portal is created by an entity not participating (column 23-24, lines 65-67, lines 1-3, respectively) in the simulation.

Claim 35. A method for conducting a collaborative simulation of a circuit desired comprising (columns 8-9, lines 60-67 and 1-42, respectively): a) creating a portal, (column 52, lines 3-4) the portal created dynamically by writing programming files in XML (column 10, lines 7-10) and executing those files; b) granting access to the portal to a plurality of simulation engines (column 6, lines 33-35); c) receiving a simulation output file associated with a first portion of the circuit designed from a first of said plurality of simulation engines (column 31-32, lines 45-67 and 1-25, respectively); d) storing the simulation output file in a storage area, said output file available to any of said plurality of simulation engines(figure 9, (946 and 21) with column 9, lines 21-24); e) sending the simulation output file to each of said plurality of simulation engines upon request, at least a second of said plurality of simulation engines performing a simulation for a second portion of the circuit design using the output file as input(column 31, lines 45-67. Note: this passage represents reciprocity of simulation input and results (output) between team members);and f) repeating c) through e(column 31-32, lines 45-67 and 1-25, respectively)) until the circuit design has been simulated.

Claim 36. The method of claim 35 (column 31-32, lines 45-67 and 1-25, respectively), further comprising, g) terminating the portal by executing one or more XML statements (column 10, lines 7-10).

Claim 37. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein the storage area includes a synchronization file (column 9, line 11-24 and colun24, lines 61-65) associated with the simulation to allow participating simulation engines to match timing steps.

Claim 38. The method of claim 37, (column 31-32, lines 45-67 and 1-25, respectively) wherein the synchronization (column 9, line 11-24 and colun24, lines 61-65) file is updated by each simulation engine as it simulates.

Claim 39. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein each simulation engine terminates access to the portal after its output file is received.

Claim 40. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein the portal (column 52, lines 3-4) is created by an entity not participating in the simulation (column 23-24, lines 65-67 and 1-3, respectively).

Clam 41. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein the portal (column 52, lines 3-4) is created by an entity participating in the simulation.

Claim 42. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein granting access to the portal (column 52, lines 3-4) comprises verifying a username (column 11, lines 57-65) and password combination.

Claim 43. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein the simulation output file includes an industry standard output format (column 10, lines 9-10 and column 23, lines 60-67).

Claim 44. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein the simulation output file includes a vendor specific output file format (column 37, lines 52-58).

Claim 45. The method of claim 35, (column 31-32, lines 45-67 and 1-25, respectively) wherein receiving the simulation output tile includes
receiving output files from multiple simulations running (column 25, lines 60-65) contemporaneously.

Claim 46. A simulation system comprising (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4): a portal, the portal (column 52, lines 3-4) comprising a storage area to store data associated with each of a plurality of simulations (column 25-26, lines 59-67 and 1-67, respectively); a plurality of simulation engines in communication with the portal, each of the plurality of simulation

engines associated with at least one of the plurality of simulations, the plurality of simulation engines able to send to the portal data associated with one or more of the plurality of simulations and able to receive from the portal any data from the associated simulations, the data including simulation output files(columns 25-26, lines 59-67 and 1-67, respectively; column 52, lines 3-4; and columns 31-32, lines 45-67, 1-25, respectively).

Claim 47. The system of claim 46, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4) wherein the plurality of simulation engines are not in communication with the portal at the same time (column 33, lines 15-18).

Claim 48. The system of claim 46, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4; column 33, lines 15-18) wherein the communications with the portal uses XML (column 10, lines 7-10).

Claim 49. The system of claim 46, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4; column 33, lines 15-18) wherein the communications with the portal requires the verification of a username and password combination(column 11, lines 59-63).

Claim 50. The system of claim 46, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4; column 33, lines 15-18) wherein the data associated with the simulation includes a synchronization file(column 9, line 11-24 and colun24, lines 61-65) to allow simulation engines participating in the simulation to match timing steps.

Claim 51. The method of claim 46, (column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4; column 33, lines 15-18) wherein the synchronization file is updated by each simulation engine (column 31,lines 59-67) as it simulates.

Claim 52. A simulation system comprising: a portal, the portal comprising a storage area to store data associated with each of a plurality of simulations(column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4; column 33, lines 15-18); a plurality of simulation engines in communication with the portal(column 9, lines 11-16,25-43; columns 25-26, lines 59-67 and 1-8, respectively; column 52, lines 3-4; column 33, lines 15-18), the plurality of simulation engines including any web enabled (column 9, lines 25-43) simulation engine.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (571) 272-3716. Fax number is 571-273-3715.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

March 25, 2005

THS

KEVIN J. TESKA
SUPERVISORY
PATENT EXAMINER